ZOTAC ZBOX
User's Manual

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Every effort has been made to ensure that the contents of this manual are correct and up to date. However, the manufacturer makes no guarantee regarding the accuracy of its contents, and reserves the right to make changes without prior notice.

CAUTION:
Risk of explosion if the battery is replaced with an incorrect type. Batteries should be recycled where possible. Disposal of used batteries must be in accordance with local environmental regulations.

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Product Specifications

- ❑ **Microprocessor support**
  - ❖ Intel® Core™ i3-5010U (Dual-core, 2.1 GHz)
- ❑ **Operating systems:**
  - ❖ Windows 7, Windows 8 and Windows 8.1
  - ❖ 32-bit and 64-bit support
- ❑ **System Memory support**
  - ❖ Two 204-pin SO-DIMMs DDR3L-1600/1333
  - ❖ Up to 16 GB of memory
- ❑ **USB Ports**
  - ❖ Four USB 3.0 ports (one SD card/ USB 3.0 Combo , two rear panel ports and one top panel port)
- ❑ **Onboard Serial ATA**
  - ❖ SATA 6.0 Gb/s transfer rates
  - ❖ Supports two 2.5-inch SATA HDDs or SSDs (support the device with max 9.5mm height)
  - ❖ Supports RAID 0, 1
  - ❖ Supports one mSATAIII module
- ❑ **Legacy port**
  - ❖ One COM port
- ❑ **Onboard Dual LAN**
  - ❖ Supports 10/100/1000 Mbps operation
  - ❖ Supports IEEE 802.3
- ❑ **WiFi/Bluetooth support**
  - ❖ Compliant with IEEE802.11ac standard
  - ❖ High speed wireless connection and enhanced wireless security
  - ❖ Fully qualified Bluetooth v4.0
- ❑ **Onboard Audio**
  - ❖ Stereo analog audio output and Microphone input
  - ❖ HDMI 1.4a or DP 1.2 digital output
- ❑ **Green Function**
  - ❖ Supports ACPI (Advanced Configuration and Power Interface)
- ❑ **Onboard Graphics support**
  - ❖ Integrated Intel® HD Graphics 5500
  - ❖ HDMI 1.4a (max resolution: 4096x2160 @30Hz)
  - ❖ DP 1.2 (max resolution: 3840x2160 @60Hz)
- ❑ **Product Size**
  - ❖ 188mm x 188mm x 51mm

Safety information

Your ZOTAC ZBOX is designed and tested to meet the latest standards of safety for information technology equipment. However, to ensure your safety, it is important that you read the following safety instructions.

Setting up your system

- Read and follow all instructions in the documentation before you operate your system.
- Do not use this product near water or a heat source such as a radiator.
- Set up the system on a stable surface with the provided stand. Never use the system alone without the stand.
- Openings on the chassis are for ventilation. Do not block or cover these openings. Make sure you leave plenty of space around the system for ventilation. Never insert objects of any kind into the ventilation openings.
- Use this product in environments with ambient temperatures between 0℃ and 35℃.

☞ If you use an extension cord, please use the UL listed cord and make sure that the total ampere rating of the devices plugged into the extension cord does not exceed its ampere rating.

Care during use

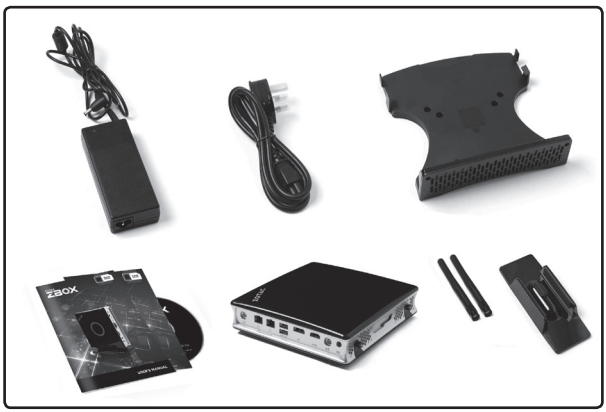
- Do not walk on the power cord or allow anything to rest on it.
- Do not spill water or any other liquids on your system.
- When the system is turned off, a small amount of electrical current still flows. Always unplug all power, modem, and network cables from the power outlets before cleaning the system.
- If you encounter the following technical problems with the product, unplug the power cord and contact a qualified service technician or your retailer.
  - The power cord or plug is damaged.
  - Liquid has been spilled into the system.
  - The system does not function properly even if you follow the operating instructions.
  - The system was dropped or the cabinet is damaged.
  - The system performance changes.

Welcome

Congratulations on your purchase of the ZOTAC ZBOX. The following illustration displays the package contents of your new ZOTAC ZBOX. If any of the below items is damaged or missed, contact your retailer.

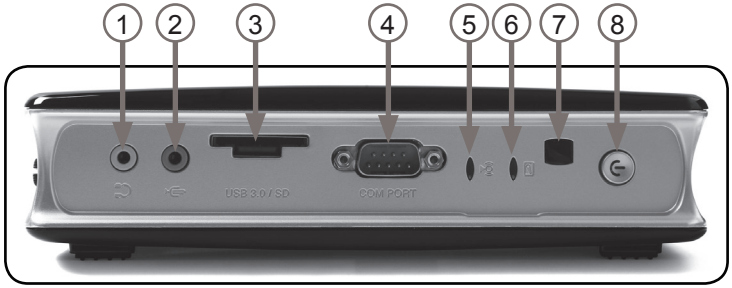
Package contents

- 1 x ZOTAC ZBOX
- 1 x Stand
- 1 x VESA mount
- 1 x AC Adapter
- 1 x Power Cord
- 2 x Antennas
- 1 x Driver DVD
- 1 x USB flash drive with OS drivers
- 1 x User Manual & Warranty Card
- 1 x Quick Start Guide



Getting to know your ZOTAC ZBOX

Front view



Refer to the diagram below to identify the components on this side of the system

1. Headphone/Audio Out jack

The stereo headphone jack (3.5mm) is used to connect the system's audio out signal to amplified speakers or headphones.

2. Microphone jack

The microphone jack is designed to connect the microphone used for video conferencing, voice narrations or simple audio recordings.

3. Combo USB 3.0 / Memory card slot

The combo USB 3.0 / memory card slot is compatible with USB 3.0 devices and SD/SDHC/SDXC cards used in devices like digital cameras, MP3 players, mobile phones and PDAs.

4. COM port

Use the COM port to connect serial devices such as mouse of fax/modems.

5. WiFi LED

The WiFi LED blinks when data is being transfered over WiFi.

6. Hard disk LED

The hard disk LED blinks when data is being written into or read from the hard disk drive.

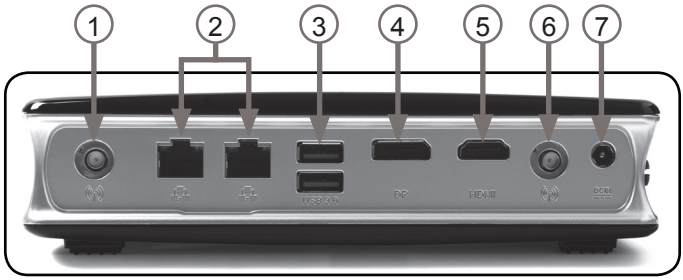
7. IR receiver

The integrated IR receiver is used to receive signals from the IR remote control.

8. Power switch

The power switch allows powering ON and OFF the system.

Rear view



Refer to the diagram below to identify the components on this side of the system.

1. WiFi antenna connector

The WiFi antenna connector supports WiFi antenna module.

2. LAN ports

The eight-pin RJ-45 LAN ports support standard Ethernet cables for connection to a local network.

3. USB 3.0 port

The USB 3.0 port supports the SuperSpeed USB 3.0 devices and is backwards compatible with USB 2.0/1.1 devices. Use this port for USB 3.0 devices for maximum performance with USB 3.0 compatible devices.

4. DisplayPort

DisplayPort supports both external (box-to-box) and internal (laptop LCD panel) display connections.

5. HDMI port

The HDMI (High Definition Multimedia Interface) port supports a UHD device such as an LCD TV or monitor to allow viewing on a larger external display.

6. Bluetooth antenna connector

The bluetooth antenna connector supports bluetooth antenna module.

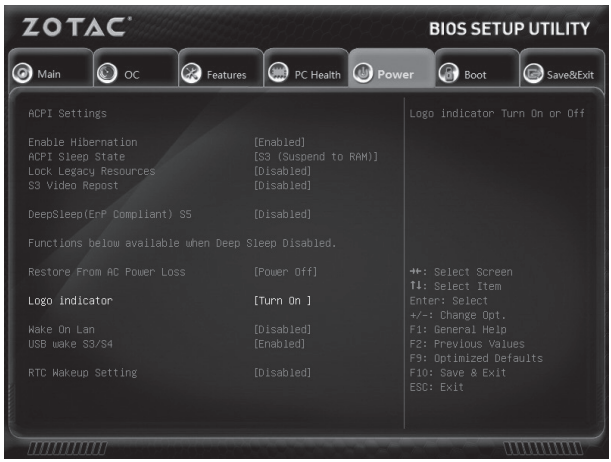
7. Power input (DC19V)

The supplied power adapter converts AC power to DC power for use with this jack. Power supplied through this jack supplies power to the PC. To prevent damage to the PC, always use the supplied power adapter.

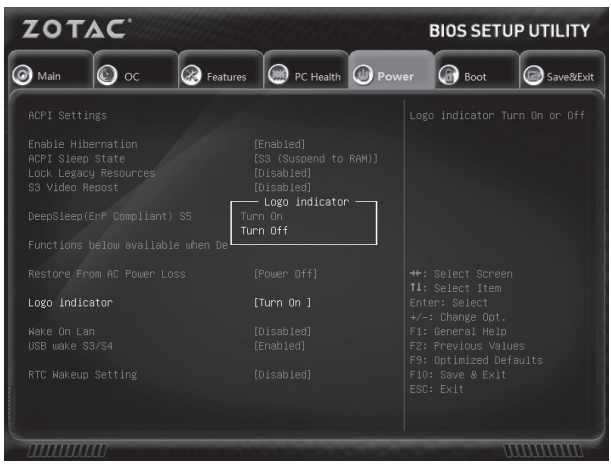
☞ The power adapter may become warm to hot when in use. Do not cover the adapter and keep it away from your body.

How to disable the ring LED indicator

1. Turn on the ZBOX mini-PC and press <Delete> to enter the BIOS SETUP UTILITY.
2. Use the arrow keys to navigate to the **Power** menu and select **Logo Indicator**.



3. Press <Enter> and select **Turn off**.

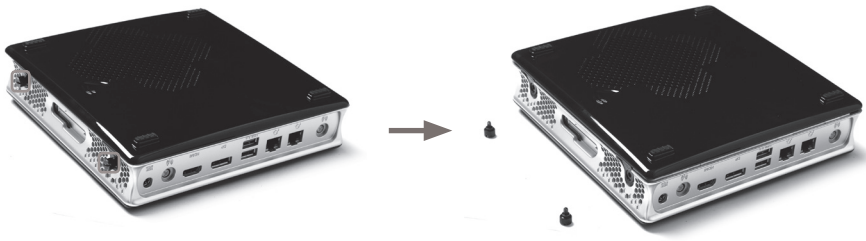


4. Press F10 to save the configuration and exit.

Installing Hardware inside ZOTAC ZBOX

Before installing hardware, please follow the instructions below to remove the cover of your ZOTAC ZBOX.

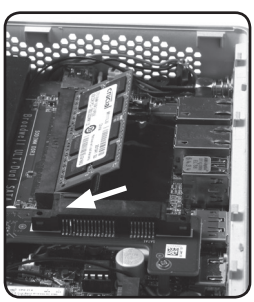
1. Unscrew.



2. Gently remove the cover as the image below.

Installing a memory module

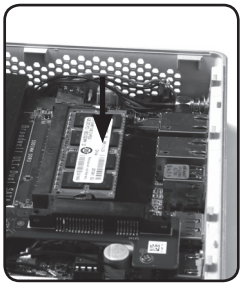
1. Locate the SO-DIMM memory slots and insert a SO-DIMM memory module into the slot at a 45 degree angle.



Note:

1. Users please note that the SO-DIMM slots are under the HDD bracket.
2. When installing two SO-DIMM memory modules, please insert a module into the lower slot first.

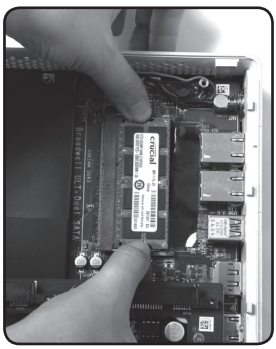
2. Gently press down on the memory module until it locks into place by the arms of the memory slot.



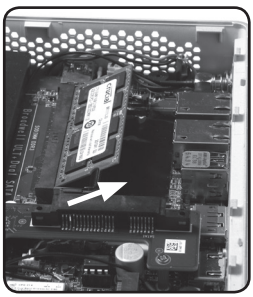
Note: This ZOTAC ZBOX accomodates two DDR3 SO-DIMM memory modules. You must install at least one module in one of the two slots.

Removing the memory module

1. Locate the SO-DIMM memory slot and gently press the two arms securing the memory module outwards, as shown in the image below, to release the memory module.

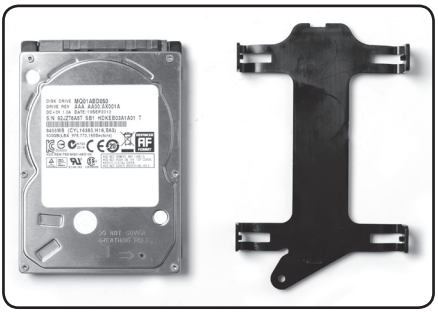


2. Remove the memory module from the slot at a 45-degree angle.

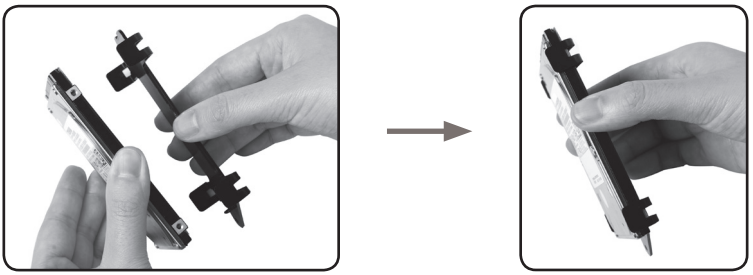


Installing a hard disk

1. Locate the 2.5-inch SATA hard disk and the hard disk bracket.



2. Install the hard disk to the hard disk bracket.



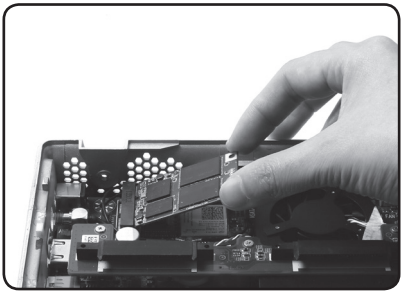
3. Insert the hard disk into the slot at a 45 degree angle and gently slide into the connector.

4. Reinstall the thumb screw.

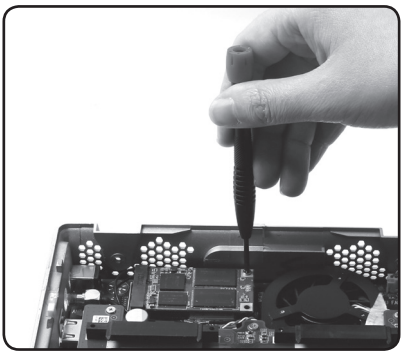
5. If you need, install the second hard disk as the above steps.

Installing an mSATA SSD module

1. Locate the mSATA slot and insert the mSATA SSD module into the slot.

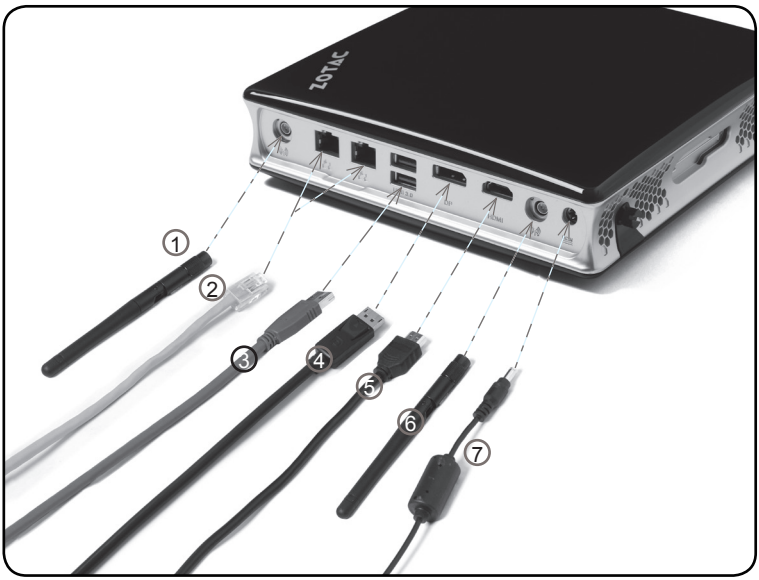


2. Gently press down on the mSATA SSD module and install the screw.



Setting up your ZOTAC ZBOX

You need to connect peripherals before using your ZOTAC ZBOX.



1. Connecting a WiFi antenna module
Connect a WiFi antenna module to the WiFi antenna connector.

2. Connecting to a network device
Connect one end of a network cable to the LAN port on the system rear panel and the other End to a hub or switch.

3. Connecting to USB 3.0 devices
Connect USB 3.0 devices such as external hard drives, SSDs and flash drives to the USB 3.0 port on the system rear panel.

4. Connecting a DisplayPort display
Connect the DisplayPort connector to the DP port.

5. Connecting to an HDMI display

Connect one end of an HDMI cable to the HDMI port on the system rear panel and the other end to a HDMI-compatible display such as an HDTV or monitor.

6 Connecting a Bluetooth antenna module

Connect a bluetooth antenna module to the bluetooth antenna connector.

7. Turning on the system

Connect the supplied AC adapter to the DC IN jack on the system rear panel and then press the power switch on the front panel to turn on the system.

☞ When your ZOTAC ZBOX is not in use, unplug the power adapter or switch off the AC outlet to save on power consumption.

Positioning your ZOTAC ZBOX

☞ Do not position the ZOTAC ZBOX where the ventilation holes are covered. To guarantee proper use, leave 4 inches (10 cm) spacing in front of the ventilation holes.

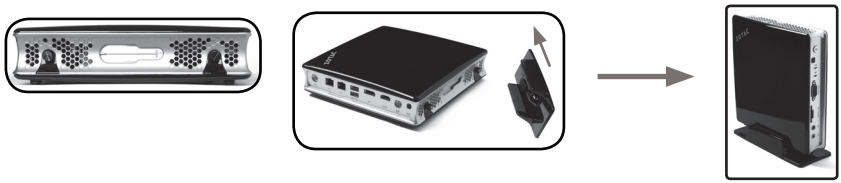
☞ ZOTAC mini-PC system provide ample connectivities in tiny space, please choose connectors and cables in appropriate size to avoid interference.

Installing the stand

Erect your ZOTAC ZBOX with the supplied stand. To do so :

1. Locate the screw hole on the bottom of the ZOTAC ZBOX.
2. Align the stand screw to the PC screw hole and then secure the Stand to the PC with a coin.

☞ Do not place your ZOTAC ZBOX on the desktop without the stand.



Installing your ZOTAC ZBOX to a monitor

You can also install your ZOTAC ZBOX to the back of a monitor. To do so:

1. Secure the VESA mount to your monitor with four screws (HNM/M4x8).
2. Place your ZOTAC ZBOX on the VESA mount noting the correct alignment and then secure the PC to the VESA mount with a coin.

☞ To fasten the VESA mount, your monitor must comply with VESA75 Or VESA100 standard.

☞ Mechanical Loading Stability - Mounting of the equipment on the backside of the monitor should be lay this equipment on a reliable surface when install. A drop or fall could cause injury.

☞ If the total weight of your monitor and ZOTAC ZBOX is over 7kg, the system may be unstable.

Installing drivers and software

Installing an operating system

The ZOTAC ZBOX does not ship with an operating system preinstalled. The user must install the operating system before the ZOTAC ZBOX can be used. The following operating systems are supported:

- Windows 7
- Windows 8
- Windows 8.1

Follow the instructions below to install an operating system:

1. Attach external DVD drive via USB 3.0
2. Insert disk for operating system (Windows or Linux).
3. Wait for the ZOTAC ZBOX to boot from the disk.
4. Follow the onscreen directions to install the operating system.
5. Install system drivers to gain full functionality of the ZOTAC ZBOX hardware and features.

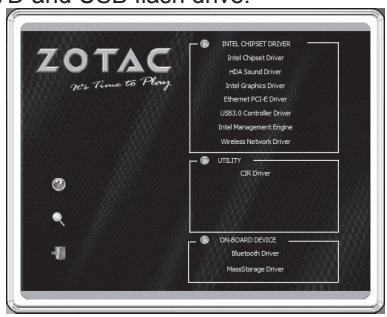
Installing system drivers

Before you can use the full features of the ZOTAC ZBOX, the system drivers must be installed. The following types of operating systems are supported by the ZOTAC ZBOX driver DVD and USB flash drive:

- Windows 7
- Windows 8
- Windows 8.1

Follow the instructions below to install the system drivers:

1. Insert the ZOTAC ZBOX driver DVD or USB flash drive. If autorun is enabled, the driver installationmain menu will show up automatically. If autorun is disabled, you may click the file Launch.EXE to bring up the driver installation main menu.
2. The following drivers are available on the DVD and USB flash drive:
   - Intel Chipset Driver
   - HDA Sound Driver
   - Intel Graphics Driver
   - Ethernet PCI-E Driver
   - USB3.0 Controller Driver
   - Intel Management Engine
   - Wireless Network Driver
   - CIR Driver
   - Bluetooth Driver
   - MassStorage Driver



• USB Charger (optional)

Note: If you want to use USB charger for iPhone/iPad, please install the driver at X:\Utility\Software\Usb Charger\setup.exe (X: your driver disk letter).

☞ Each driver must be installed individually to ensure proper operation of the ZOTAC ZBOX.

3. Select the driver you want to install. The driver installer should launch.
4. Follow the onscreen instructions to install the drivers.
5. Restart the system.

Using your ZOTAC ZBOX

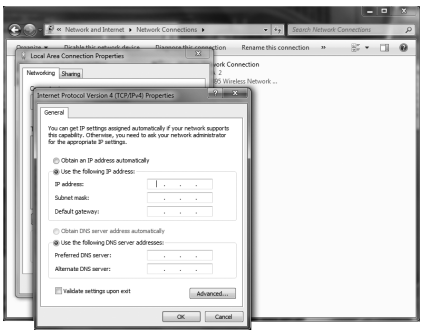
Configuring wireless connection

Please follow the instructions below to connect to a wireless network:

1. Double-click the wireless network icon (pic) in the notification area.
2. Select the wireless network you want to connect to from the list and click Connect.
3. After connection is established, you will see “Connected.”
   Note 1: For security concerns, Do NOT connect to an unsecured network, otherwise, the transmitted information without encryption might be visible to others.
   Note 2: Enter the network security key if necessary.

Configuring wired connection

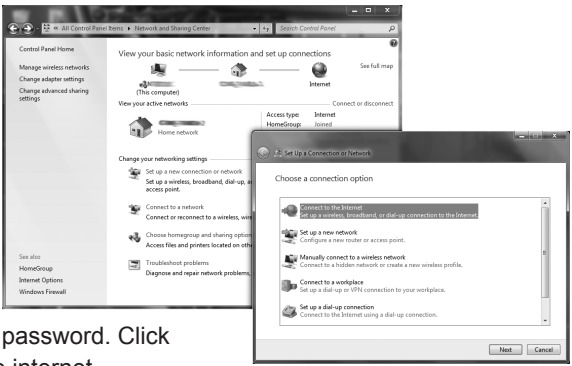
Using a static IP



1. Right-click the network icon in the notification area and select “Open Network Connections”.
2. Right-click “Local Area Connection” and select “Properties”.
3. Highlight “Internet Protocol (TCP/IP)” and click “Properties”.
4. Select “Use the following IP address”.
5. Enter your IP address, subnet mask and Default gateway.
6. Enter the preferred DNS server address if necessary.
7. After entering all of the related values, click “OK” to finish the configuration.

Using a dynamic IP (PPPoE connection)

1. Repeat Step 1-3 in the previous section.
2. Select “Obtain an IP address automatically” and click “OK”.
3. Click “Create a new connection” to start the NEW Connection Wizard.
4. Click “Next”.
5. Select “Connect to the Internet” and click “Next”.
6. Select “Set up my connection manually”.
7. Select your connection type and click “Next”.
8. Enter your ISP Name and click “Next”.
9. Enter your User name and Password. Click “Next”.
10. Click “Finish” to finish the configuration.
11. Enter your user name and password. Click “Connect” to connect to the internet.

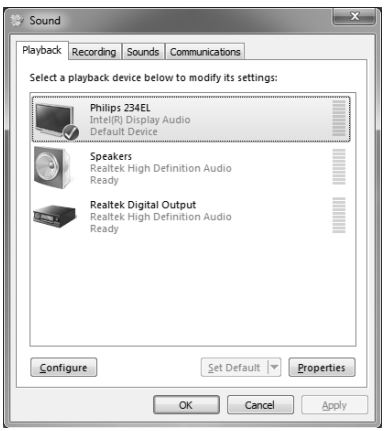

View your basic network information and set up connections
Choose a connection option
Connect to the Internet
Set up a new network
Manually connect to a wireless network
Connect to a workplace
Set up a dial-up connection
Next
Cancel

Note: Contact your internet Service Provider (ISP) if you have problems connecting to the network.

Configuring audio output via an HDMI /DP device

Follow the steps below to enable audio output via HDMI /DP when connecting the ZOTAC ZBOX to a TV or receiver via HDMI /DP.

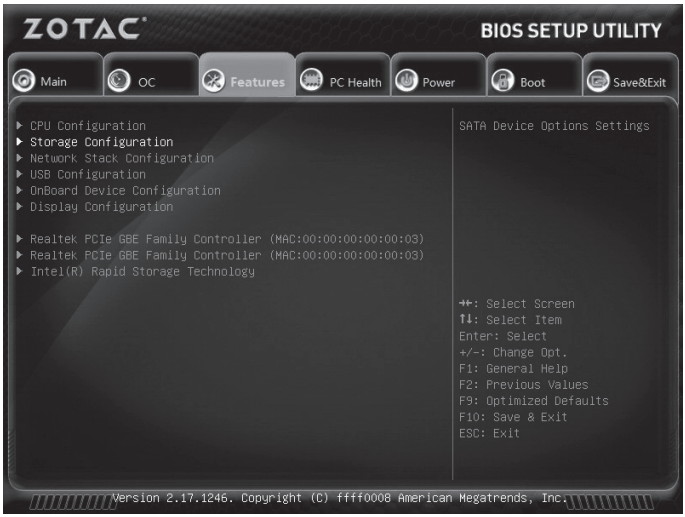
1. Access the Sound settings via the system Control Panel.
2. Under Playback devices, click the display device that corresponds with your HDMI /DP audio compatible display.
3. Click the “Set Default” button in the lower right hand corner.
4. Click “OK” to exit the setup.



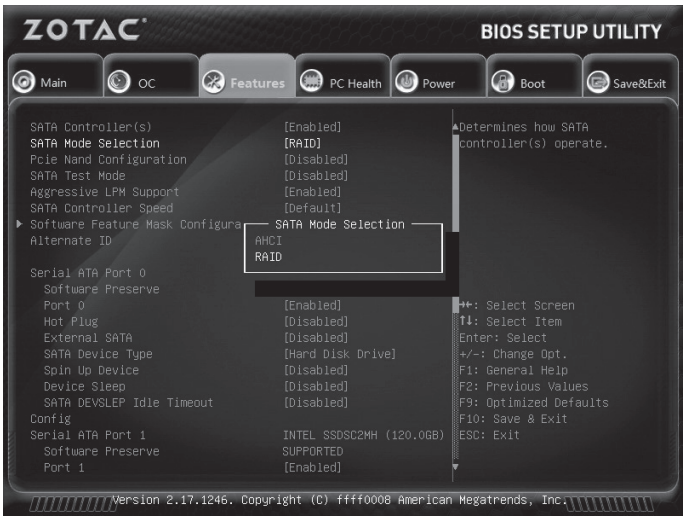
SATA RAID User Manual

Creating a RAID set under UEFI Mode (Default)

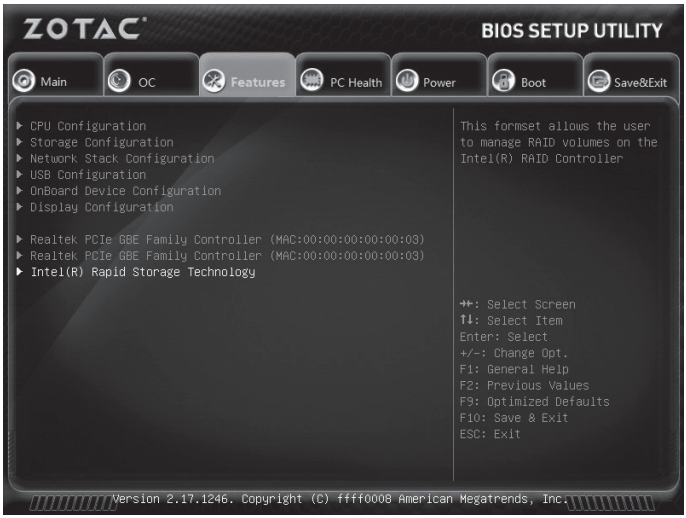
1. Setting your computer, then press <Delete> to enter BIOS SETUP UTILITY.
2. Use the arrow key to select Features menu, and select the item **"Storage Configuration"**.



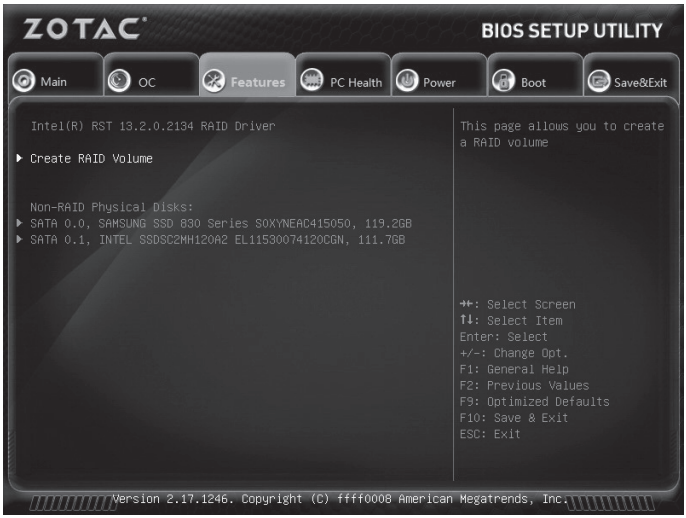
3. Enter **Storage Configuration** > **SATA Mode Selection**, and enable the option "***RAID***".



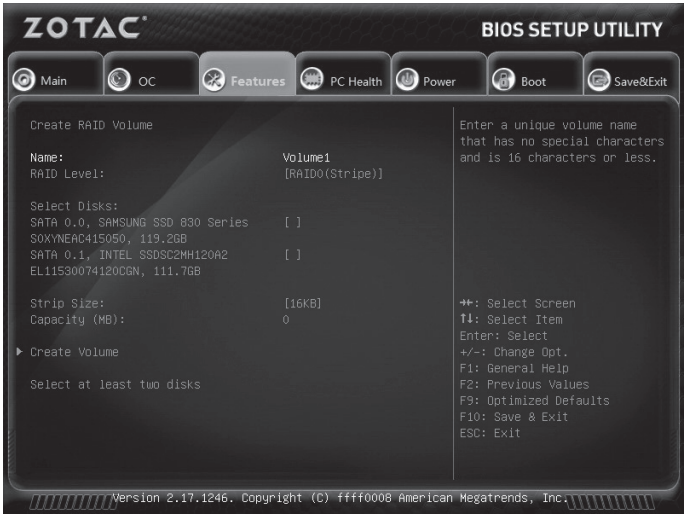
4. Press F10 to save the configuration and exit. The PC reboots.
5. Use the arrow key to select Features menu, and select the item **“Intel(R) Rapid Storage Technology”**.



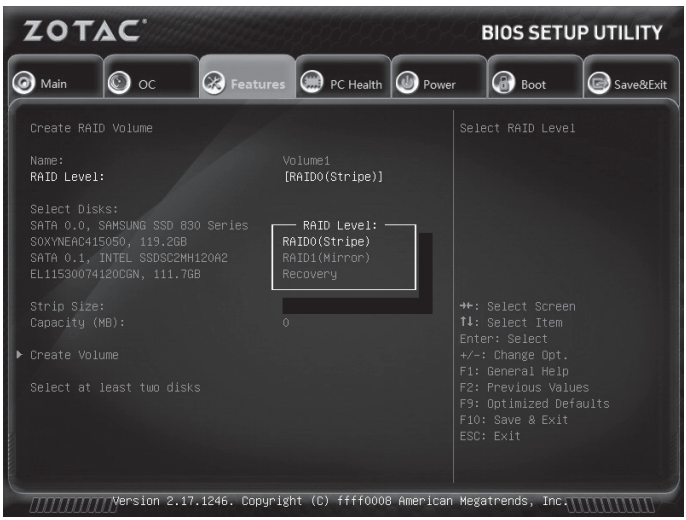
6. Enter **Create RAID Volume**.



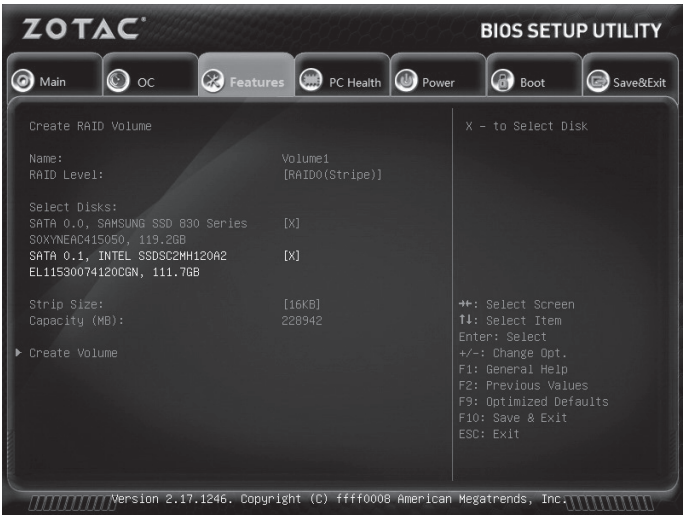
7. Enter a volume name.



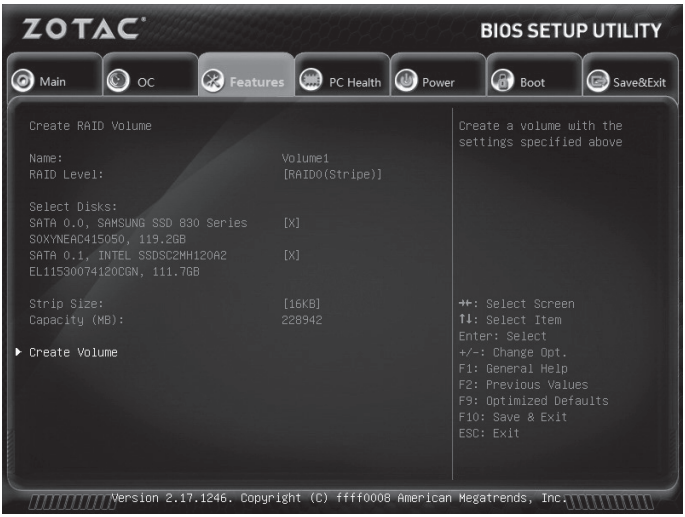
8. Select RAID Level: "***RAID0(Stripe)***", "***RAID1(Mirror)***", or "***Recovery***".



9. Select disks for RAID.

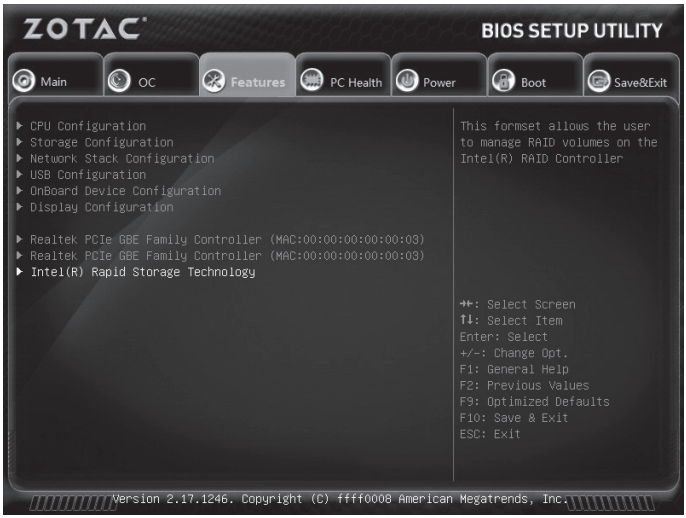


10. Select **Create Volume** to finish RAID settings under UEFI mode.

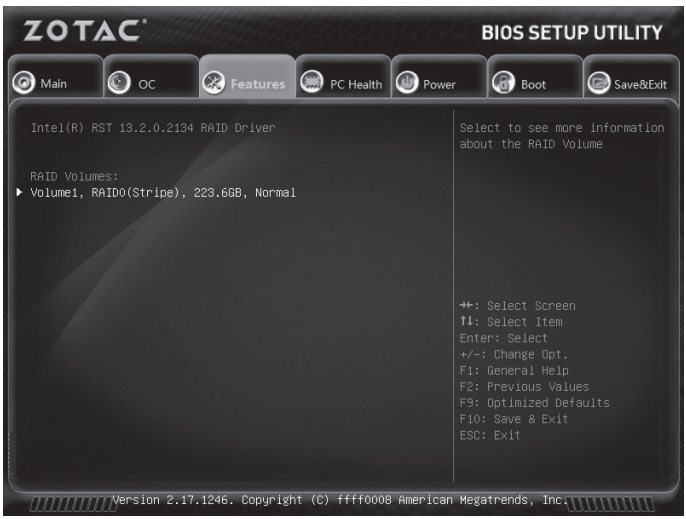


Deleting a RAID set under UEFI Mode

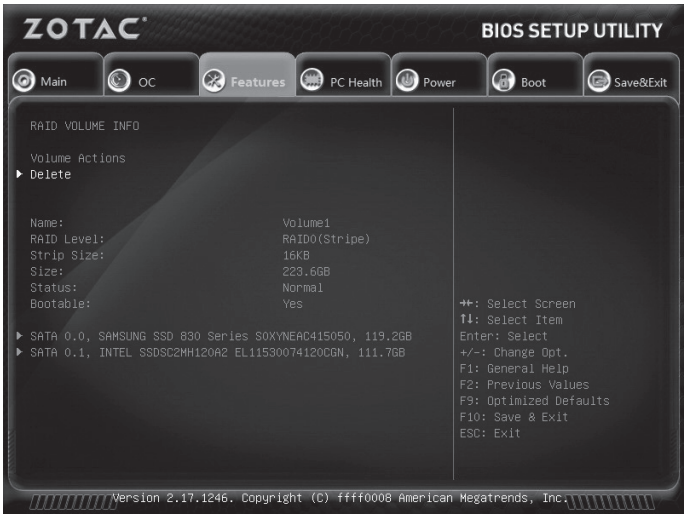
1. Use the arrow key to select Features menu, and select the item **“Intel(R) Rapid Storage Technology”**.



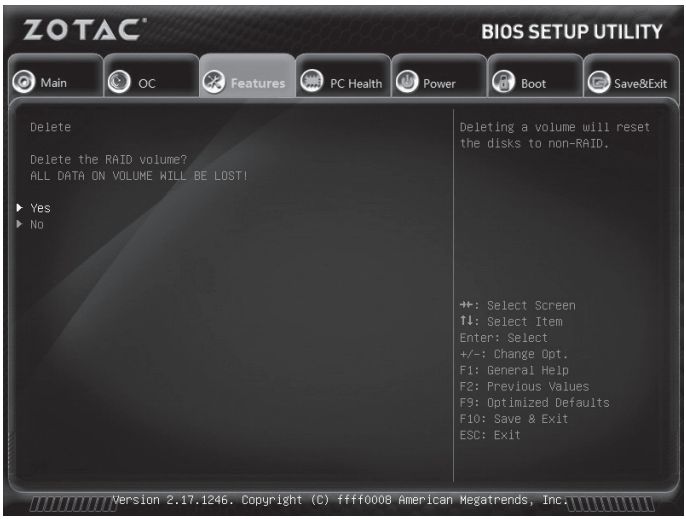
2. The RAID Volumes information will display, enter the created RAID Volume.



3. Select **Delete**.

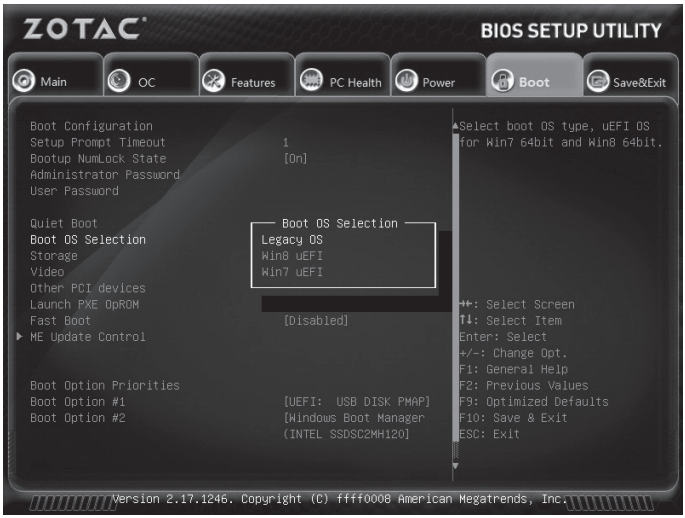


4. Select **Yes** to delete the RAID volume.

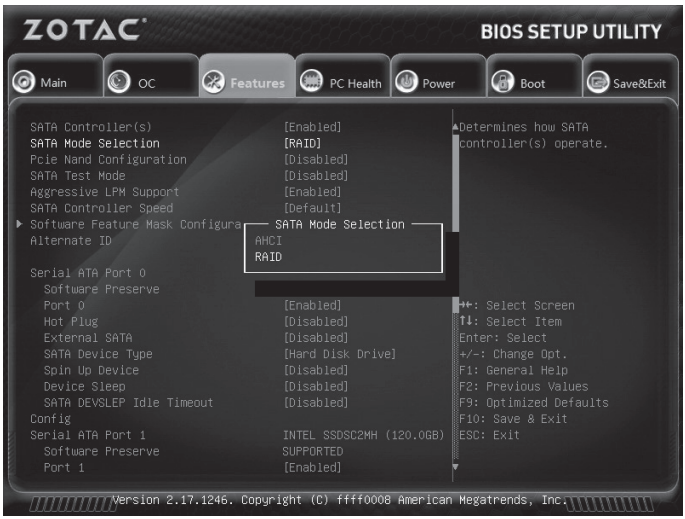


Legacy OS Mode

1. Setting your computer, then press <Delete> to enter BIOS SETUP UTILITY.
2. Use the arrow key to select Boot menu, and enter **Boot OS Selection**, enable the option ***"Legacy OS"***.



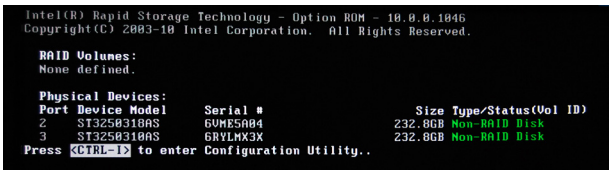
3. Enter **Storage Configuration** > **SATA Mode Selection**, and enable the option "***RAID***".



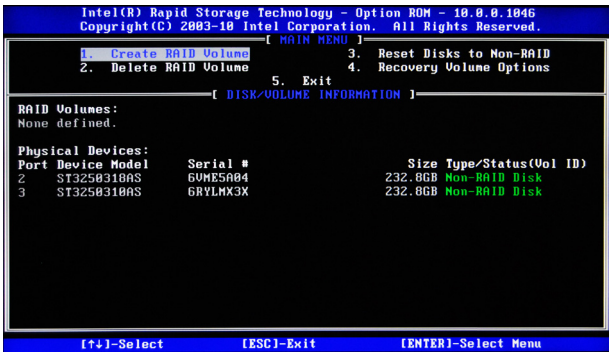
4. Enable the disks that you want to use as RAID disks.
5. Press F10 to save the configuration and exit. The PC reboots.

Entering the RAID BIOS utility

1. During POST, press <Ctrl-I> to enter the Intel(R) Rapid Storage Technology RAID BIOS menu.


Intel(R) Rapid Storage Technology - Option ROM - 10.0.0.1046
Copyright(C) 2003-10 Intel Corporation. All Rights Reserved.
RAID Volumes:
None defined.
Physical Devices:
Port Device Model Serial # Size Type/Status(Vol ID)
2 ST3250318AS 6VME5A04 232.8GB Non-RAID Disk
3 ST3250310AS 6RYLMX3X 232.8GB Non-RAID Disk
Press <CTRL-I> to enter Configuration Utility..

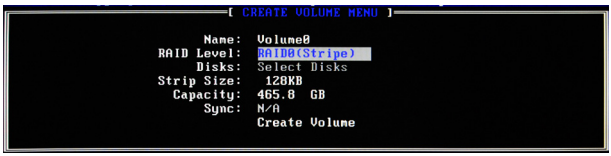
2. The main Intel(R) Rapid Storage Technology RAID BIOS menu appears.
3. Use the arrow keys to move the color bar and navigate through the items.


Intel(R) Rapid Storage Technology - Option ROM - 10.0.0.1046
Copyright(C) 2003-10 Intel Corporation. All Rights Reserved.
[MAIN MENU]
1. Create RAID Volume
2. Delete RAID Volume
3. Reset Disks to Non-RAID
4. Recovery Volume Options
5. Exit
[DISK/VOLUME INFORMATION]
RAID Volumes:
None defined.
Physical Devices:
Port Device Model Serial # Size Type/Status(Vol ID)
2 ST3250318AS 6VME5A04 232.8GB Non-RAID Disk
3 ST3250310AS 6RYLMX3X 232.8GB Non-RAID Disk
[↑↓]-Select [ESC]-Exit [ENTER]-Select Menu

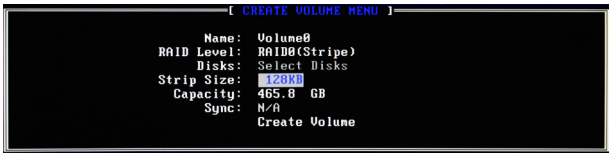
Creating a RAID set

1. In the main Intel(R) Rapid Storage Technology RAID BIOS menu, highlight **Create RAID Volume** using the ↑↓ arrow key then press <Enter>.

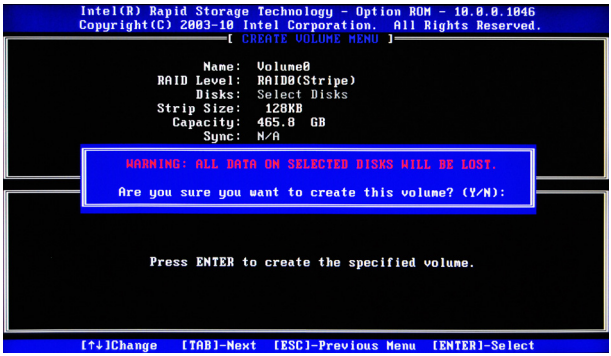
2. When the item **RAID Level** is highlighted, use the ↑ ↓ arrow key to select the RAID set that you want to create.



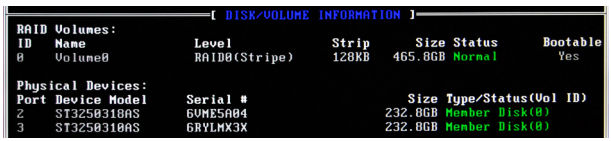
Note:
When more than two HDDs are installed in your computer, the* Disks *item will be selectable. Then users can select the HDD that you want to belong to the RAID set. Please be noticed that selecting a wrong disk will result in losing the original data of the HDD.



3. Press <Enter> to confirm the creation of the RAID set. A dialogue box appears to confirm the action. Press <Y> to confirm; otherwise, press <N>.


Intel(R) Rapid Storage Technology - Option ROM - 10.0.0.1046
Copyright(C) 2003-10 Intel Corporation. All Rights Reserved.
[CREATE VOLUME MENU]
Name: Volume0
RAID Level: RAID0(Stripe)
Disks: Select Disks
Strip Size: 128KB
Capacity: 465.8 GB
Sync: N/A
WARNING: ALL DATA ON SELECTED DISKS WILL BE LOST.
Are you sure you want to create this volume? (Y/N):
Press ENTER to create the specified volume.
[↑↓]Change [TAB]-Next [ESC]-Previous Menu [ENTER]-Select

4. The following screen appears, displaying the relevant information about the RAID set you created.


[DISK/VOLUME INFORMATION]
RAID Volumes:
ID Name Level Strip Size Status Bootable
0 Volume0 RAID0(Stripe) 128KB 465.8GB Normal Yes
Physical Devices:
Port Device Model Serial # Size Type/Status(Vol ID)
2 ST3250310AS 6VME5A04 232.8GB Member Disk(0)
3 ST3250310AS 6RYLMX3X 232.8GB Member Disk(0)

Deleting a RAID set

1. In the main Intel Rapid Storage Technology RAID BIOS menu, highlight **Delete RAID Volume** using the ↑↓ arrow key then press <Enter>.

2. Use the space bar to select the RAID set you want to delete. Press the <Del> key to delete the set.

Intel Rapid Storage Technology

Introduction

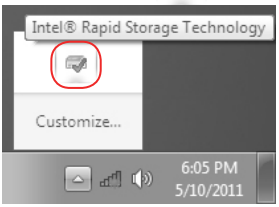
Intel Rapid Storage Technology is a Windows-based application that provides improved performance and reliability for systems equipped with SATA disks for desktop, mobile, and server platforms. When using one or multiple SATA disks, you can take advantage of enhanced performance and lower power consumption. When using more than one disk, you can increase protection against data loss in the event of disk failure.

Note: 1. Please confirm that the driver:* Intel Rapid Storage Technology *has been installed completely before you set the following configuration.
2. There must be an SSD as cache volume to set Intel Rapid Storage.

Setting Intel Rapid Storage

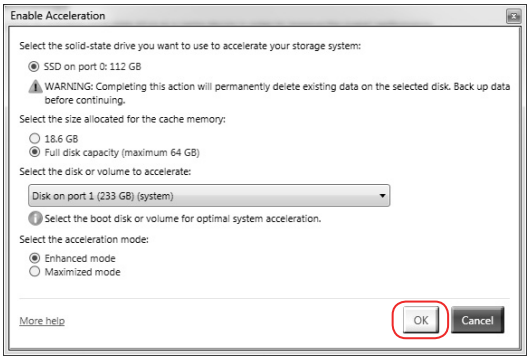
Follow the instructions below to set Intel Rapid Storage.

1. Click the icon in the lower right corner of the desktop.

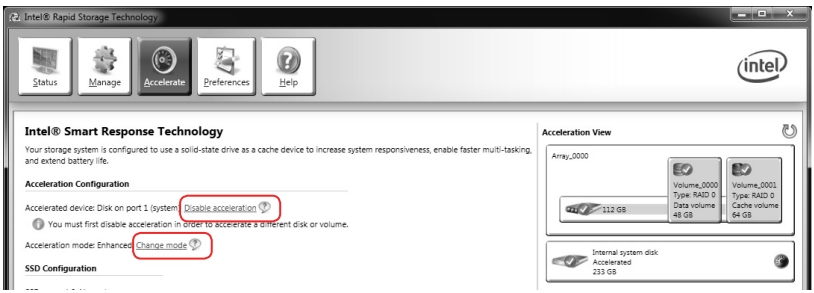


2. Enter the "**Accelerate**" menu, and click "**Enable acceleration**".

3. When the window “**Enable Acceleration**” displays, select the cache memory size and the acceleration mode, and click “**OK**” to accelerate the storage.


Enable Acceleration
Select the solid-state drive you want to use to accelerate your storage system:
SSD on port 0: 112 GB
WARNING: Completing this action will permanently delete existing data on the selected disk. Back up data before continuing.
Select the size allocated for the cache memory:
18.6 GB
Full disk capacity (maximum 64 GB)
Select the disk or volume to accelerate:
Disk on port 1 (233 GB) (system)
Select the boot disk or volume for optimal system acceleration.
Select the acceleration mode:
Enhanced mode
Maximized mode
More help
OK
Cancel

4. If you want to change the setting, click “**Disable acceleration**” to disable the acceleration, or click “**Change mode**” to change the acceleration mode.



5. If you want to reset cache to available, click “**Reset to available**”.